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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/601,617

06/23/2003

Louis A. Lippincott

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8912

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7590

06/28/2006

EXAMINER

NGUYEN, HAU H

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ART UNIT

PAPER NUMBER

2628

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/601,617	LIPPINCOTT ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hau H. Nguyen	2628	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

The response filed 3/21/2006 has been considered in preparing this Office action.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-19, 21-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Littlefield (U.S. Patent No. 4,949,280).

Referring to claim 1, Littlefield teach a system as shown in Fig. 5, comprising a plurality of processing elements (29) of a media signal processor 28, a selection unit (interconnection network 18), a plurality of hardware accelerators (12), a memory interface 18, and a random access memory 14 coupled to the memory interface. As shown in fig. 7, Littlefield teach enabling a hardware accelerator selected from a plurality of hardware accelerators according at least one bit of a register within the register file (in the form of a packet) set by a processing element, and granting the processing element ownership over the selected hardware accelerator (col. 8, lines 40-60).

As per claims 2 and 3, Littlefield teach enabling a processing element to set a bit when the process desired selection of a hardware accelerator / designating at least one register to receive control commands from the plurality of processing elements (by

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evaluating the leading bits in register 38 and 40, Fig. 7, col. 8, lines 40-60), and activating the selected hardware accelerator to perform a media processing function (i.e. graphics command processing).

Claim 4, which is similar in scope to claims 1-3, is thus rejected under the same rationale.

As per claim 5, as cited above, Littlefield teach identifying a processing element have written the control command; determining, according to the control command, an input data stream for the selected hardware accelerator (such as, evaluating the received packet at each node 22 in the interconnection 18 in the configuration of Fig. 5); determining, according to the control command, an output data stream for the selected hardware accelerator (such routing to the appropriate graphics processor 12, Fig. 5); directing the selecting hardware accelerator to perform a media processing function according to a received control command (performing graphics command processing); updating a control bit within a register file to indicate whether data is available for one or more data dependent processing elements (updating logics 46, 47 and the buffer full flags 50 and 51, col. 8, lines 40-60, Fig. 7); requiring the one or more data dependent processing elements to wait to execute instructions until the data it needs to execute the instructions is available in one or more register (such as, queuing requests until resource available, col. 6, lines 42-47).

Claims 6-19, 21-26, which are similar in scope to claims 1-5, and thus are rejected under similar rationale.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Littlefield (U.S. Patent No. 4,949,280).

As per claims 27 and 28, although Littlefield fails to explicitly teach or suggest the RAM is a SDRAM and/or DDRSDRAM, it would have been obvious to one of ordinary skill in the art at the time the present invention was made to replace one type of RAM to another type of RAM is considered within the level of ordinary skill in the art based on the system requirement, for example, some want speed (fast) over cost (more expensive for fast memory).

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Littlefield (U.S. Patent No. 4,949,280) in view of Potts (U.S. Patent No. 6,477,177).

As per claim 20, although Littlefield did not explicitly teach the hardware accelerators comprising audio hardware accelerators, Potts (cited in previous Office Action) teaches this feature (col. 4, line 65).

***Response to Arguments***

6. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

Bowen et al. (U.S Patent No. 6,292,200) teach a compute graphics system having multiple rendering pipes coupled together through a hyperpipe network scheme wherein data requests are transferred to a designated node to process.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is (571) 272-7787. The examiner can normally be reached on 8:30am-5:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H. Nguyen

6/23/2006



Kee M. Tung  
Primary Examiner